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Title: MaineDOT Procedures for Implementing Demonstration
Projects and Non-project Related Roadway Changes

Discipline: General Engineering

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Issue Date: February 11, 2021

General

Vehicular conflicts with bicycles and pedestrians are on the rise nationwide and specifically in Maine. MaineDOT has had to react to the calls from pedestrians and bicyclists to mitigate those conflicts. This has led to a series of requests from municipalities, special interest groups and individuals to make changes to any state or state-aid roadway roadways (either inside or out of urban compact), to help slow traffic, to protect vulnerable users or provide general safety improvements. Some of these treatments are innovations on existing design standards, but some also ask for exceptions to existing design standards, or use non-standard features and treatments not found in the AASHTO Greenbook or in the MUTCD. Some requests may be for nationally accepted treatments being proposed for the first time in a municipality or in an area where the proposal raises questions about its effectiveness.

MaineDOT realizes that complete street concepts and permanent traffic calming measures are expensive and that some municipalities may be reluctant to spend money on treatments not knowing if they will have an appropriate impact or will be met with resistance by their constituency. The Department understands there is a need to develop a process for entities to experiment with low cost measures to implement complete streets concepts and temporary traffic calming features. This document is intended to provide guidance for the applicant and the reviewer and streamline and make consistent the process for potential approval.

As implementing some version of a NACTO design recommendation is a common request, under these guidelines, design treatments found in NACTO may be used if they don't violate any of the conditions under Procedures for Implementing Demonstration Projects (below). The Demonstration project will be used as a proving ground to determine the effectiveness of the proposed treatments.

These guidelines shall apply to all state and state aid roads.

Waivers for specific implementation requirements will be considered on a case by case basis.

Definitions

AASHTO Green Book- a nickname for the AASHTO Publication “A Policy On Geometric Design Of Highways And Streets” containing the current design research and practices for highway and street geometric design.

Applicant - The person or group requesting a Demonstration project.

Demonstration project - Demonstration project means “**a temporary project conducted by a municipality or a special interest group**”, to determine whether the implementation of a specified device, proposed traffic calming, proposed multi-modal addition or other change in roadway cross-section meets the desired goals of the group proposing the project.

Experimentation – Experimentation is an MUTCD term used for devices/concepts that haven’t yet been accepted by FHWA through the MUTCD. This would require a formal request to FHWA to test a new traffic control device/concept that is either: 1) Not in the 2009 **MUTCD** and has not been tested or 2) is in the 2009 **MUTCD**, but the device would be used in a new way (different size, type, or location) that has not been tested.

HCP – Highway Corridor Priority is terminology used by MaineDOT to categorize our roadways by relative importance (numbered 1, 2, 3, 4 and 6).

Interim Approval – Interim Approval is an MUTCD term for a device/concept that hasn’t been adopted in the MUTCD, but that FHWA/MUTCD officials find promising. This would be a formal request to FHWA for approval to allow the interim use, pending official rulemaking of a new traffic control device, a revision to the application or manner of use of an existing traffic control device.

MUTCD – Manual of Uniform Traffic Control Devices is a set of national standards used by road managers nationwide to install and maintain traffic control devices on all public streets, highways, bikeways, and private roads open to public travel.

National Association of City Transportation Officials (NACTO) - NACTO’s mission is to build cities as places for people, with safe, sustainable, accessible, and equitable transportation choices that support a strong economy and vibrant quality of life.

Retroreflectivity – the ability of a a surface, material, or device (retroreflector) that reflects light back to its source.

Tactical Urbanism - an umbrella term used to describe a collection of low-cost, temporary changes to the built environment, usually in cities, intended to improve local neighbourhoods and city gathering places.

Urban Compact Municipality – a MaineDOT designation placed on 45 +communities within the state of Maine based on meeting certain criteria. The municipalities have maintenance responsibilities on the roadways with the Urban Compact area.

Procedures for Approvals for Implementing Demonstration Projects

MaineDOT has developed the following set of criteria for implementing Complete Streets Concepts and temporary traffic calming via Demonstration Projects:

- 1) The applicant must develop some sort of written plan/schematics for review by the municipality. The plan at a minimum shall include the following:
 - a. If the plan introduces new conflict points (change in traffic control, signal retiming, reduction in number of lanes, etc), either a memo documenting the scope of demonstration project and explaining its impacts on the traveling public or a plan with a Professional Engineers (P.E.) stamp will be required.
 - b. Plan shall include materials to be used on the project.
 - i. Any AASHTO approved category 1 and 2 traffic control device (drums, cones, tubular markers, temp. curb, etc.) is approved for use on the project.
 - ii. Municipality sign off on materials to be used on the project
 - iii. If project is in for an overnight period or longer, “Are the materials retroreflective?”
 - iv. Plan shall include how materials will be removed at the completion of the project
 - v. Removal plans shall be developed in a manner that material removal does not harm existing infrastructure
 - c. Plan shall include a proposal for installation
 - i. Maintenance of Traffic plan during installation
 - ii. Safety plan – (varies by complexity of the project) includes time of day for installation, protection for/of installers and safety of the traveling public
 - iii. Personnel safety – Personal Protective Equipment (PPE)
 - iv. Expected duration for the installation (proposed date of installation, proposed date of removal, is demonstration being done during the peak period of traffic?)
 - d. Plan shall include a maintenance plan
 - i. Who will be monitoring the installation to ensure it stays intact, remove knockdowns from the roadway
 - ii. What is the response time to fix knockdowns (nights/weekends)
 - e. Plan shall set forth goals of the project
 - i. What are the performance metrics for the project? (reduce speed, bicycle-ped safety, etc)
 - ii. What are the performance standards that need to be met? (documented speed reduction, have bicycle-ped conflicts been reduced, etc)
 - iii. How does the public weigh in?
 - f. Plan shall include a public relations strategy
 - i. Press release
 - ii. Contact person for comments
 - iii. Survey to determine whether the public finds the project effective
- 2) The applicant gets a formal written sign-off (letter of support) from the municipality in which the project is being requested.
 - a. The plan needs to be approved and signed off on by the Town Manager or Administrator or equivalent. While it is recommended that the town council or equivalent review and approve the project, the signature of the town manager shall be sufficient for the project to move forward.
- 3) Once the municipality signs off on the project, MaineDOT will review the application.

- 4) If the demonstration project uses a device/concept that needs interim approval or experimentation status and the performance leads to permanent use of the treatment, the applicant will be responsible for the following:
 - a. If the device/concept needs interim approval from FHWA, the applicant shall apply for interim approval
 - b. If the project requires experimentation status through FHWA, the applicant shall apply for and receive experimentation approval.
 - c. The Applicant shall develop goals of the experiment
 - d. Comply with all FHWA criteria for experimentation
 - e. Develop report for FHWA
- 5) MaineDOT may reject an application based on its finding that it deems the project unsafe.
- 6) All applications shall be submitted to the Region Traffic Engineer at the MaineDOT Region office that has jurisdiction over the municipality.

Procedures for Approvals for Implementing Traffic Control Device Changes on State or State-Aid Roadways

MaineDOT staff and municipal staff on occasion, have been tasked with making minor changes (striping layouts, changes in type of traffic control, signal changes, etc) to the existing highway infrastructure. These changes shall be reviewed and documented as follows:

- 1) The Department/Municipal staff must develop some sort of written plan/schematics for review by the municipality. The plan at a minimum shall include the following:
 - a. If the plan introduces new conflict points (change in traffic control, signal retiming, reduction in number of lanes, etc), the plans would require a Professional Engineers (P.E.) stamp.
 - b. MaineDOT and the municipality shall agree on the changes being put forward.
 - c. The responsible party will be required to develop the installation plan, maintenance of traffic plan, and Job Safety Analysis (JSA) for the project.
 - d. Projects that would have significant public interest (changing from 2 way to 4 way stop control, change number of lanes, etc) shall require meeting with the public. At a minimum, this should include meeting with the municipality's council/selectboard.